

CHENEY TESTING COMPANY, INC.

P.O. Box 367

HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

Company	A. Scott Ritchie	Test No.	1
Well Name & Number	Allen Worcester #1	Zone Tested	Lower Topeka
Company Address	125 N. Market, Ste. 950, Wichita, Ks.	Date	8-24-85
Company Rep.	Bob Buffo	Tester	Bill Nichols
Contractor	Murfin Drilling Co.	Elevation	2340
Location: Sec. 13 Twp. 6s Rge. 22w Co. Graham State Ks.	Est. Feet of Pay		

Recorder No. 13636 Type AK-1 Range 6075 PSI

Recorder Depth 3531 Clock # 25828

(A) Initial Hydrostatic Mud 1857 PSI

(B) First Initial Flow Pressure 80 PSI

(C) First Final Flow Pressure 161 PSI

(D) Initial Shut-in Pressure 966 PSI

(E) Second Initial Flow Pressure 232 PSI

(F) Second Final Flow Pressure 293 PSI

(G) Final Shut-in Pressure 956 PSI

(H) Final Hydrostatic Mud 1807 PSI

Temperature 105°

Mud Weight 9.7 Viscosity 47

Fluid Loss 9.6

Interval Tested 3487-3540

Anchor Length 53

Top Packer Depth 3482

Bottom Packer Depth 3487

Total Depth 3540

Drill Pipe Size 4½" XH

Wt. Pipe I. D. 2.25 Ft. Run 121

Recovery-Total Feet 610

Recovered 10 Feet Of Oil Cut Watery Mud (10% Oil/20% Water/70% Mud)

Recovered 120 Feet Of Oil Specked Watery Mud (Less than 1% Oil)

Recovered 480 Feet Of Salt Water

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Extra Equipment Price of Job 625.00

Recorder No. 13222 Type AK-1 Range 4000 PSI

Recorder Depth 3535 Clock # 26193

Tool Open Before I.S.I. 30 Mins.

Initial Shut-in 45 Mins.

Flow Period 30 Mins.

Final Shut-in 45 Mins.

Top Choke Size 1" Hole Size 7 7/8"

Bottom Choke Size 3/4" Rubber Size 6 3/4"

Tool Open @ 12:51 A.M.

Blow Remarks

1st Open: Strong 18" Blow

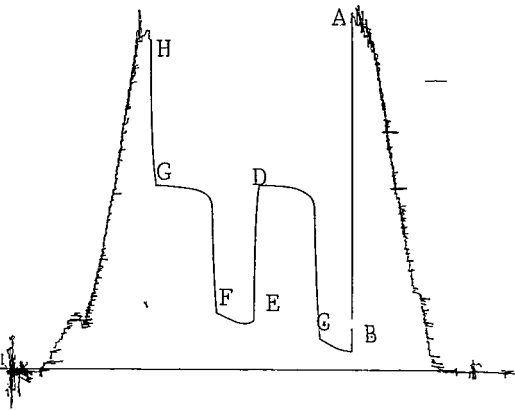
2nd Open: Fair 8" Blow

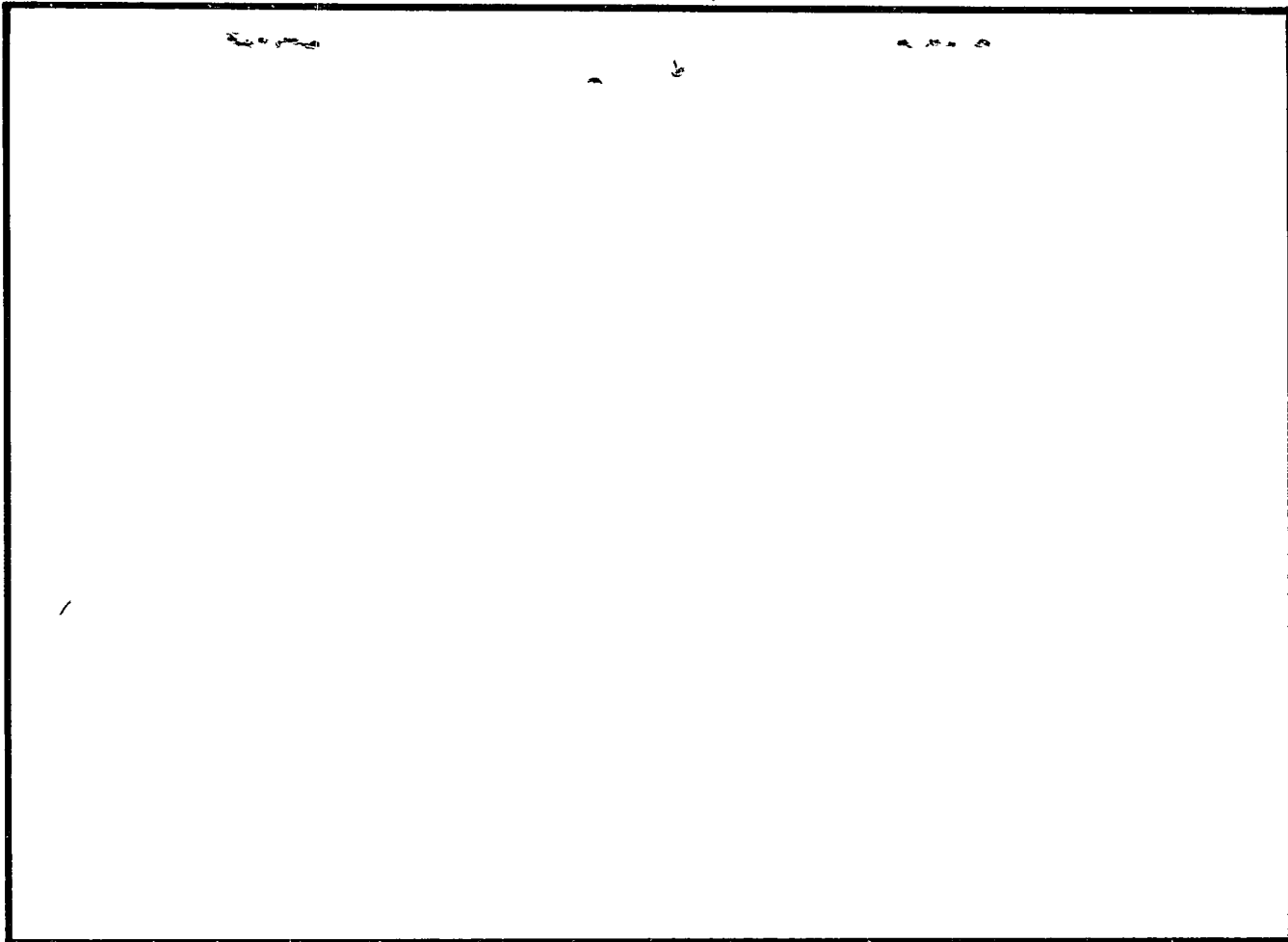
Mud Chlorides: 2,500 PPM

Recovery Chlorides: 85,000 PPM

Resistivity: 0.085 OHM Meters @ 75° F.

13222/L





This is an actual photograph of recorder chart.

POINT	PRESSURE	
	Field Reading	Office Reading
(A) Initial Hydrostatic Mud	1857	PSI
(B) First Initial Flow Pressure	80	PSI
(C) First Final Flow Pressure	161	PSI
(D) Initial Closed-in Pressure	966	PSI
(E) Second Initial Flow Pressure	232	PSI
(F) Second Final Flow Pressure	293	PSI
(G) Final Closed-in Pressure	956	PSI
(H) Final Hydrostatic Mud	1807	PSI

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DRILL-STEM TEST DATA

Company	A. Scott Ritchie	Test No.	2
Well Name & Number	Allen Worcester #1	Zone Tested	Toronto & Lansing
Company Address	125 N. Market, Suite 950, Wichita, Ks	Date	August 24, 1985
Company Rep.	Bob Buffo	Tester	Bill Nichols
Contractor	Murfin Drilling Co.	Elevation	2340
Location: Sec. 13	Twp. 6s	Rge. 22w	Co. Graham State Ks.
			Est. Feet of Pay

Recorder No. 13636 Type AK-1 Range 6075 PSI

Recorder Depth 3591 Clock # 25828

(A) Initial Hydrostatic Mud 1857 PSI

(B) First Initial Flow Pressure 60 PSI

(C) First Final Flow Pressure 80 PSI

(D) Initial Shut-in Pressure 1196 PSI

(E) Second Initial Flow Pressure 101 PSI

(F) Second Final Flow Pressure 111 PSI

(G) Final Shut-in Pressure 1176 PSI

(H) Final Hydrostatic Mud 1807 PSI

Temperature 105°

Mud Weight 9.6 Viscosity 47

Fluid Loss 8.8

Interval Tested 3545-3600

Anchor Length 55

Top Packer Depth 3540

Bottom Packer Depth 3545

Total Depth 3600

Drill Pipe Size 4½" XH

Wt. Pipe I. D. 2.25 Ft. Run 121

Recovery-Total Feet 230

Recovered 50 Feet Of Oil Specked Watery Mud

Recovered 60 Feet Of Watery Mud

Recovered 120 Feet Of Muddy Water

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Recorder No. 13222 Type AK-1 Range 4000 PSI

Recorder Depth 3595 Clock # 26193

Tool Open Before I.S.I. 30 Mins.

Initial Shut-in 45 Mins.

Flow Period 30 Mins.

Final Shut-in 45 Mins.

Top Choke Size 1" Hole Size 7 7/8"

Bottom Choke Size 3/4" Rubber Size 6 3/4"

Tool Open @ 3:29 P.M.

Blow Remarks

1st Open: Weak 3"

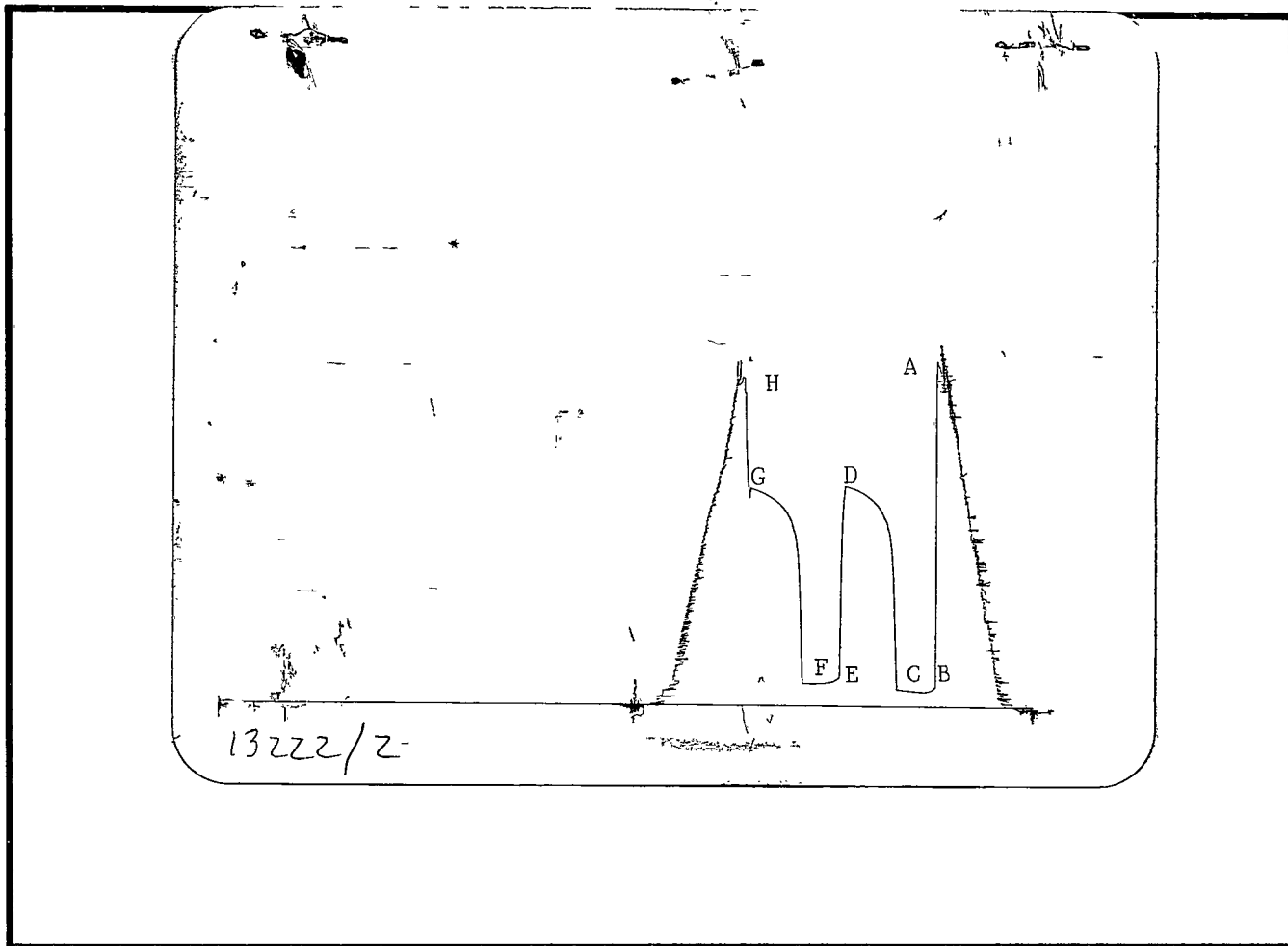
2nd Open: Weak 2"

Mud Chlorides: 3,000 PPM

Recovery Chlorides: 65,000 PPM

Resistivity: 0.111 OHM Meters @ 75° F.

Price of Job 625.00



This is an actual photograph of recorder chart.

POINT	PRESSURE	
	Field Reading	Office Reading
(A) Initial Hydrostatic Mud	1857	PSI
(B) First Initial Flow Pressure	60	PSI
(C) First Final Flow Pressure	80	PSI
(D) Initial Closed-in Pressure	1196	PSI
(E) Second Initial Flow Pressure	101	PSI
(F) Second Final Flow Pressure	111	PSI
(G) Final Closed-in Pressure	1176	PSI
(H) Final Hydrostatic Mud	1807	PSI

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DRILL-STEM TEST DATA

Company	A. Scott Ritchie	Test No.	3
Well Name & Number	Allen Worcester #1	Zone Tested	Kansas City "35-50-70"
Company Address	125 N. Market, Suite 950, Wichita, Ks.	Date	8-25-85
Company Rep.	Bob Buffo	Tester	Bill Nichols
Contractor	Murfin Drilling co.	Elevation	2340
Location: Sec. 13 Twp. 6S Rge. 22w Co. Graham State Ks.	Est. Feet of Pay		

Recorder No. 13636 Type AK-1 Range 6075 PSI

Recorder Depth 3649 Clock # 25828

(A) Initial Hydrostatic Mud 1947 PSI

(B) First Initial Flow Pressure 101 PSI

(C) First Final Flow Pressure 364 PSI

(D) Initial Shut-in Pressure 1246 PSI

(E) Second Initial Flow Pressure 465 PSI

(F) Second Final Flow Pressure 646 PSI

(G) Final Shut-in Pressure 1246 PSI

(H) Final Hydrostatic Mud 1927 PSI

Temperature 114° F.

Mud Weight 9.8 Viscosity 42

Fluid Loss 8.6

Interval Tested 3614-3658

Anchor Length 44

Top Packer Depth 3609

Bottom Packer Depth 3614

Total Depth 3658

Drill Pipe Size 4 1/2" XH

Wt. Pipe l. D. 2.25 Ft. Run 121

Recovery-Total Feet 1440

Recovered 60 Feet Of Oil Specked Watery Mud

Recovered 120 Feet Of Muddy Water

Recovered 1260 Feet Of Salt Water

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Extra Equipment

Recorder No. 13222 Type AK-1 Range 4000 PSI

Recorder Depth 3653 Clock # 26193

Tool Open Before I.S.I. 30 Mins.

Initial Shut-in 30 Mins.

Flow Period 30 Mins.

Final Shut-in 30 Mins.

Top Choke Size 1" Hole Size 7 7/8"

Bottom Choke Size 3/4" Rubber Size 6 3/4"

Tool Open @ 6:45 A.M.

Blow Remarks

1st Open: Strong 18" Blow

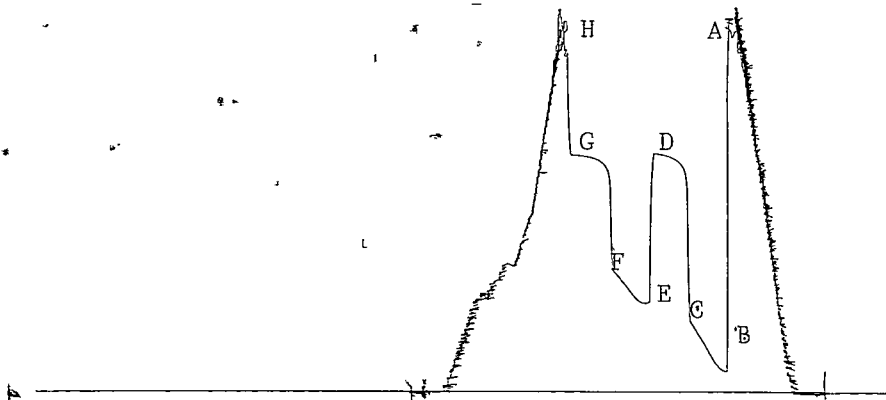
2nd Open: Strong 18: Blow

Mud Chlorides: 3,000 PPM

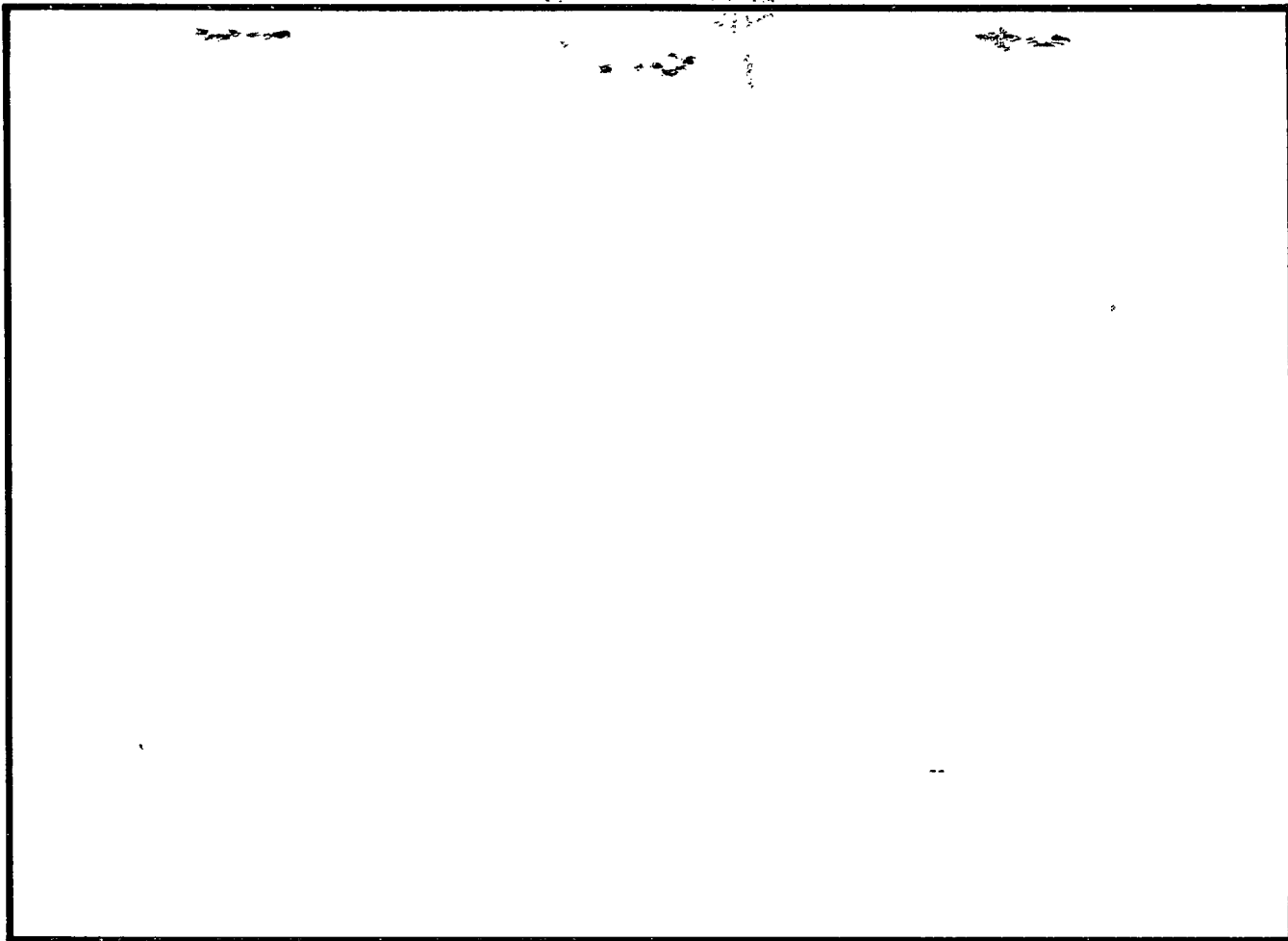
Recovery Chlorides: 91,000 PPM

Resistivity: 0.090 OHM Meters @ 59° F.

Price of Job 625.00



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This is an actual photograph of recorder chart.

POINT	PRESSURE	
	Field Reading	Office Reading
(A) Initial Hydrostatic Mud	1947	PSI
(B) First Initial Flow Pressure	101	PSI
(C) First Final Flow Pressure	364	PSI
(D) Initial Closed-in Pressure	1246	PSI
(E) Second Initial Flow Pressure	465	PSI
(F) Second Final Flow Pressure	646	PSI
(G) Final Closed-in Pressure	1246	PSI
(H) Final Hydrostatic Mud	1927	PSI

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DRILL-STEM TEST DATA

Company	A. Scott Ritchie	Test No.	4
Well Name & Number	Allen Worcester #1	Zone Tested	Kansas City "140-130"
Company Address	125 N. Market, Suite 950, Wichita, Ks.	Date	8-26-85
Company Rep.	Bob Buffo	Tester	Bill Nichols
Contractor	Murfin Drilling co.	Elevation	2340
Location: Sec. 13 - Twp. 6s Rge. 22w Co. Graham State Ks.	Est. Feet of Pay		

Recorder No. 13636 Type AK-1 Range 6075 PSI

Recorder Depth 3754 Clock # 25828

(A) Initial Hydrostatic Mud 1957 PSI

(B) First Initial Flow Pressure 50 PSI

(C) First Final Flow Pressure 50 PSI

(D) Initial Shut-in Pressure 263 PSI

(E) Second Initial Flow Pressure 60 PSI

(F) Second Final Flow Pressure 60 PSI

(G) Final Shut-in Pressure 111 PSI

(H) Final Hydrostatic Mud 1927 PSI

Temperature 107°

Mud Weight 9.7 Viscosity 45

Fluid Loss 10.4

Interval Tested 3702-3763

Anchor Length 61

Top Packer Depth 3697

Bottom Packer Depth 3702

Total Depth 3763

Drill Pipe Size 4½" XH

Wt. Pipe l. D. 2.25 Ft. Run 121

Recovery-Total Feet 3

Recovered 3 Feet Of Oil Specked Mud

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Extra Equipment

Recorder No. 13232 Type AK-1 Range 4000 PSI

Recorder Depth 3758 Clock # 26193

Tool Open Before I.S.I. 30 Mins.

Initial Shut-in 45 Mins.

Flow Period 30 Mins.

Final Shut-in 45 Mins.

Top Choke Size 1" Hole Size 7 7/8"

Bottom Choke Size 3/4" Rubber Size 6 3/4"

Tool Open @ 2:39 A.M.

Blow Remarks

1st Open: Weak ¼" Blow, Dead Within 20 Minutes.

2nd Open: No Blow

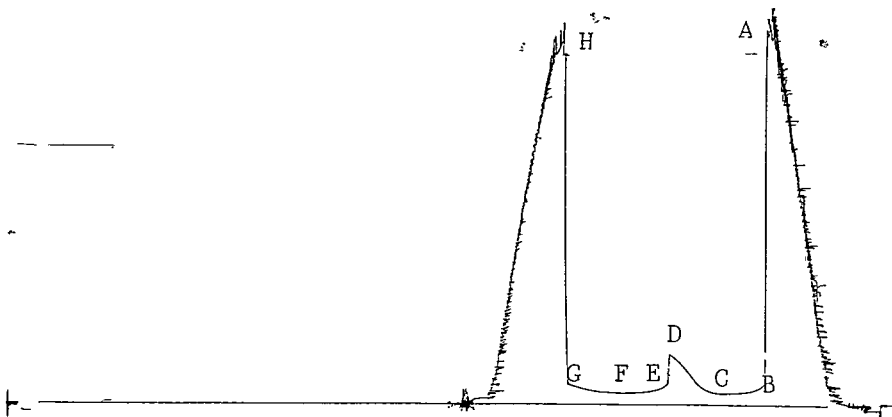
Mud Chlorides: 3,500 PPM

Recovery Chlorides: 3,800 PPM

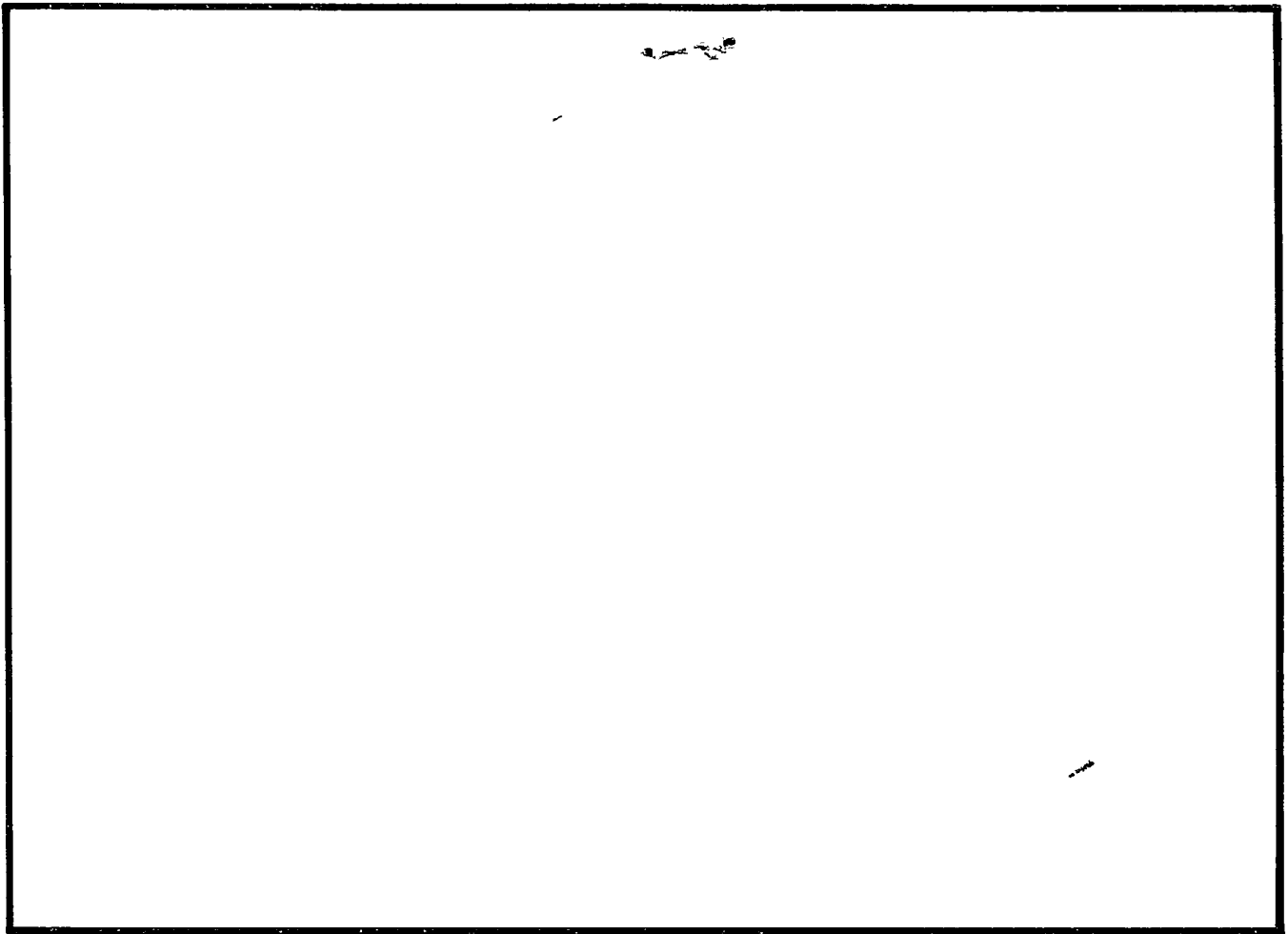
Resistivity: 1,400 OHM Meters @ 75° F.

Price of Job 625.00

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This is an actual photograph of recorder chart.

POINT	PRESSURE	
	Field Reading	Office Reading
(A) Initial Hydrostatic Mud	1957	PSI
(B) First Initial Flow Pressure	50	PSI
(C) First Final Flow Pressure	50	PSI
(D) Initial Closed-in Pressure	263	PSI
(E) Second Initial Flow Pressure	60	PSI
(F) Second Final Flow Pressure	60	PSI
(G) Final Closed-in Pressure	111	PSI
(H) Final Hydrostatic Mud	1927	PSI

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DRILL-STEM TEST DATA

Company	A. Scott Ritchie	Test No.	5
Well Name & Number	Allen worcester #1	Zone Tested	Conglomerate Sand
Company Address	125 N. Market, Suite 950, Wichita, Ks.	Date	8-26-85
Company Rep.	Bob Buffo	Tester	Bill Nichols
Contractor	Murfin Drilling Co.	Elevation	2340
Location: Sec. 13 Twp. 6s Rge. 22w Co. Graham State Ks.	Est. Feet of Pay		

Recorder No. 13636 Type AK-1 Range 6075 PSI

Recorder Depth 3836 Clock # 25828

(A) Initial Hydrostatic Mud 2058 PSI

(B) First Initial Flow Pressure 303 PSI

(C) First Final Flow Pressure 455 PSI

(D) Initial Shut-in Pressure 1166 PSI

(E) Second Initial Flow Pressure PSI

(F) Second Final Flow Pressure PSI

(G) Final Shut-in Pressure PSI

(H) Final Hydrostatic Mud 1997 PSI

Temperature 114°

Mud Weight 9.8 Viscosity 42

Fluid Loss 11.2

Interval Tested 3785-3845

Anchor Length 60

Top Packer Depth --

Bottom Packer Depth 3785

Total Depth 3845

Drill Pipe Size 4 1/2" XH

Wt. Pipe I. D. Ft. Run

Recovery-Total Feet 840

Recovered 300 Feet Of Muddy Water

Recovered 540 Feet Of Salt Water

Recovered Feet Of Trace of Oil (1%) in Recovery

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Extra Equipment

Recorder No. 13222 Type AK-1 Range 26195 PSI

Recorder Depth 3840 Clock # 26195

Tool Open Before I.S.I. 15 Mins.

Initial Shut-in 15 Mins.

Flow Period Mins.

Final Shut-in Mins.

Top Choke Size 1" Hole Size 7 7/8"

Bottom Choke Size 3/4" Rubber Size 6 3/4"

Tool Open @ 6:27 P.M.

Blow Remarks

1st Open- Strong 18" Blow

2nd Open- ----

Ran One Packer Per Operators Request.

Pulled Test without Final Flow or Shut In

Per Operators Instructions.

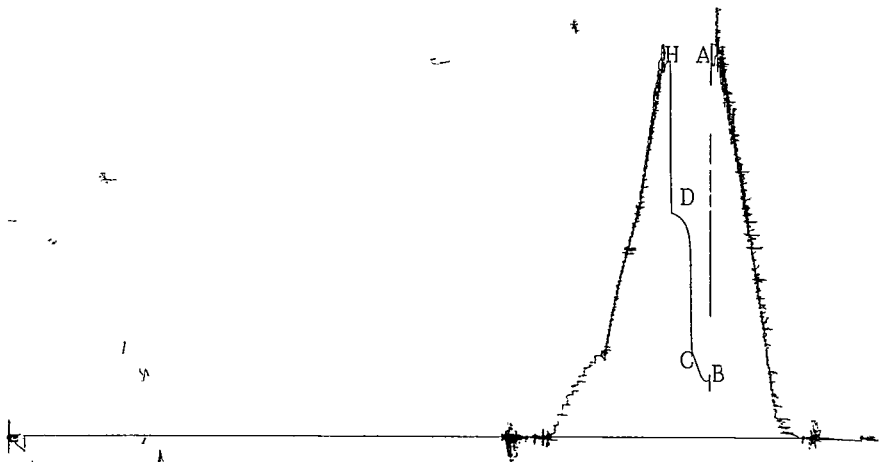
Mud Chlorides: 4,000 PPM

Recovery Chlorides: 70,000 PPM

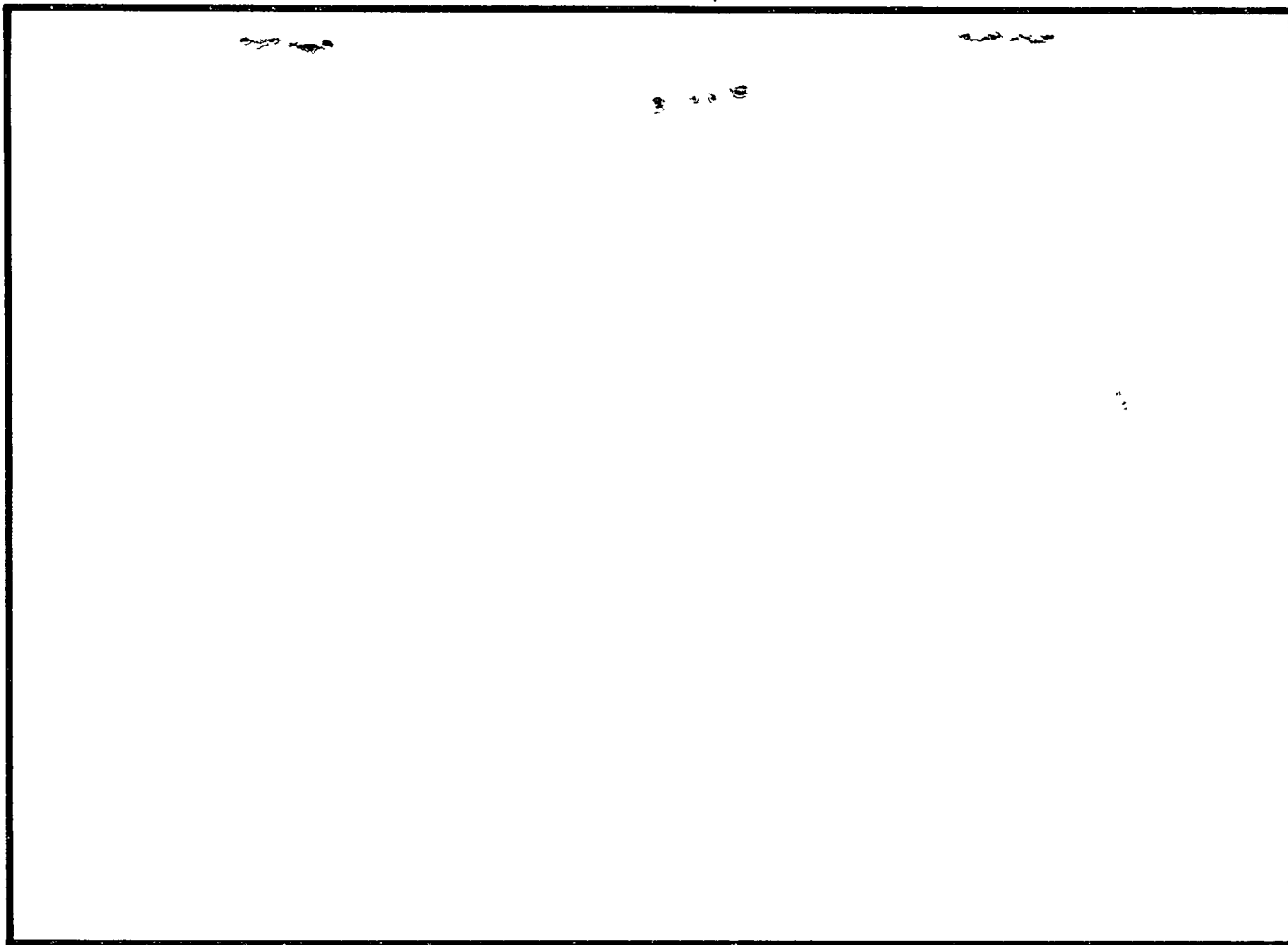
Resistivity: 0.115 OHM Meters @ 75° F.

Drill Collars I.D. 2.25, Ft. Run 121

Price of Job 625.00



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This is an actual photograph of recorder chart.

POINT	PRESSURE	
	Field Reading	Office Reading
(A) Initial Hydrostatic Mud	2058	PSI
(B) First Initial Flow Pressure	303	PSI
(C) First Final Flow Pressure	455	PSI
(D) Initial Closed-in Pressure	1166	PSI
(E) Second Initial Flow Pressure		PSI
(F) Second Final Flow Pressure		PSI
(G) Final Closed-in Pressure		PSI
(H) Final Hydrostatic Mud	1997	PSI